



1.51 Practice: Assignment Name: Isaiah Singh Date: 4/22/2020

ALS Liberal Arts Math 1 Sem 2

Points Possible: 28

Answer the following questions using what you've learned from this unit. Write your responses in the space provided.

Scoring: Each question is worth 2 points.

For questions 1 – 3, answer the questions about polynomials.

1. What is the degree of the polynomial below?

$$x^3 + 2x - 3x^4 + 5 + 3x^2$$

Answer: 4

2. What is the degree of the polynomial below?

$$3 - 14x^4 - 2x^8 + 20x + 4x^2$$

Answer: 8

3. What is the coefficient of the term of degree 6 in the polynomial below?

$$3x^2 - 14x^6 + 6x^3 + 12x + 5x^5$$

Answer: -14

For questions 4 – 9, find the sum or difference of the polynomials. Write your answer in descending order.

$$(9x^2 + 3x - 2) + (3x^2 - 5x - 3)$$

4. Answer: $12x^2 - 2x - 5$

$$(3x^2 - 2x + 6) - (5x^2 + 2x + 9)$$

5. Answer: $-2x^2 - 4x - 3$

$$(8x^3 - 3x^2 + 2x + 1) + (-8x^2 + 3x + 2)$$

$$(7x^3 + 2x^2 + 5x - 12) - (9x^3 - 4x^2 + 2x + 6)$$

6. Answer: $8x^3 - 11x^2 + 5x + 3$

7. Answer: $-2x^3 + 6x^2 + 3x - 18$

$$(12x^4 + 3x^3 + 7x + 4) + (12x^4 + 7x^2 - 7x + 2)$$

$$(2x^3 - 2x^2 - 3x - 3) - (9x^3 - 3)$$

8. Answer: $24x^4 + 3x^3 + 7x^2 + 6$

9. Answer: $-7x^3 - 2x^2 - 3x$

For questions 10 – 11, use the table to answer the questions. It is set up to multiply two polynomials.

x^3	$-2x^2$	5
3x		
8		

What is the coefficient of the x^3 -term of the product?

10. Answer: 1

What is the coefficient of the x^2 -term of the product?

11. Answer: -2

For questions 12 – 14, find the product of the two polynomials. Write your answer in descending order.

$$(2x+7)(2x-7)$$

$$(8x^2 - 2x + 2)(3x + 5)$$

12. Answer: $4x^2 - 49$

13. Answer: $24x^3 + 34x^2 - 4x + 10$

14. $(2x-3)(x^2 + 4x + 1)$

Answer: $2x^3 + 5x^2 - 10x - 3$